



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,663	09/10/2003	Danny T. Williams	659.001	3754
29166	7590	03/10/2005	EXAMINER	
DOMINGUE & WADDELL, PLC P.O. Box 3405 LAFAYETTE, LA 70502			GAY, JENNIFER HAWKINS	
		ART UNIT		PAPER NUMBER
		3672		

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<i>Office Action Summary</i>	Application No.	Applicant(s)
	10/659,663	WILLIAMS, DANNY T.
Examiner	Art Unit	
Jennifer H Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 September 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/10/03</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because the reference character “56” in Figure 4 does not include a lead line. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
  
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: P<sub>3</sub>, P<sub>4</sub>, and P<sub>5</sub>. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The abstract of the disclosure is objected to because the abstract includes the implied phrase "is disclosed". Correction is required. See MPEP § 608.01(b).

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The disclosure is objected to because of the following informalities: through the length of the specification the first occurrence of each reference character has been underlined. It is suggested that this underlining be removed, as underlining is the format for indicating that new material has been added to the specification and the current underlining may cause confusion at a later date.

Appropriate correction is required.

### ***Claim Objections***

6. Claim 23 is objected to because of the following informalities: "the apparatus" in line 1 should be changed to --the device--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 9, 17, 19, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Bates et al. (US 6,382,321).

*Regarding claim 1:* Bates et al. discloses an apparatus for use in a coal bed seam that includes the following features:

- A first tubing **30** disposed in a wellbore so that a wellbore annulus is formed therein (Figure 1). The first tubing includes a suction tube **60** at a first end where the suction tube extends into the inner portion of the first tubing.
- A second tubing **20** disposed within the first tubing so that a micro annulus **22** is formed therein. The first end of the second tubing is positioned about the suction tube, which is in communication with the wellbore annulus.

*Regarding claim 2:* The apparatus includes a stabilizer means **91** disposed about the second tubing.

*Regarding claim 9:* Bates et al. discloses an apparatus for use in a coal bed seam that includes the following features:

- A first tubing **30** disposed in a wellbore so that a wellbore annulus is formed therein (Figure 1). The first tubing includes a distal end and a proximal end.
- An annular nozzle **40, 60** operatively attached to the distal end of the first tubing. The nozzle includes an annular adapter **40** and a suction tube **60** that extends from the adapter into an inner portion of the first tubing.
- A second tubing **20** concentrically disposed within the first tubing so that a micro annulus **22** is formed therein. The first end of the second tubing is positioned about the suction tube, which is in communication with the wellbore annulus.

*Regarding claim 17:* Bates et al. discloses a method for drawing down a fluid column in a wellbore that includes a coal bed seam and a natural gas deposit using the above apparatus. The method involves the following steps:

- Providing the apparatus in the wellbore.
- Injecting a medium into the micro annulus.
- Channeling the medium through the nozzle thus causing an area of low pressure within the suction tube.
- Drawing down the fluid within the wellbore annulus into the suction tube.
- Exiting fluid from the suction tube into the inner portion of the second tubing.
- Mixing the fluid with the medium in the inner portion of the second tubing.
- Discharging the fluid and medium to the surface.

*Regarding claim 19:* The method further involves:

- Drawing down the level of the fluid within the wellbore annulus.
- Flowing natural gas from the deposit once the fluid level reaches a predetermined level.
- Producing the gas to the surface.

*Regarding claim 23:* Bates et al. discloses an apparatus that includes the following features:

- A first tubing **30** disposed in a wellbore so that a wellbore annulus is formed therein (Figure 1). The first tubing includes a annular nozzle **60** at a first end where the suction tube extends into the inner portion of the first tubing.
- A second tubing **20** disposed within the first tubing so that a micro annulus **22** is formed therein. The first end of the second tubing is positioned about the nozzle so that an annular flow area **90** is formed, which is in communication with the wellbore annulus.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3-6, 10-14, 18, 20, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bates et al. in view of Sudol (US 5,033,545).

*Regarding claims 3, 10, 18, 20, 24:* Bates et al. discloses all of the limitations of the above claims except for the apparatus including a jet means for delivering an injected medium from the micro annulus into the wellbore annulus.

Sudol discloses an apparatus similar to that of Bates et al. Sudol further teaches a jet means **19** for delivering an injected medium from a micro annulus **1** into the wellbore annulus.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the apparatus of Bates et al. to include the jet means of Sudol in order to have provided a means for keeping solids suspended in the wellbore fluid until they are pumped out (3:30-38).

*Regarding claims 4, 12:* Bates et al. discloses a means for injecting the injection medium into the micro annulus (4:37-40).

*Regarding claims 5, 11, 25:* The apparatus of Bates et al. includes an inner tubing restriction sleeve **70** disposed within the second tubing member. The suction tubing device extends into the restriction sleeve.

*Regarding claims 6, 14:* The injection medium is a combination of gas and fluid.

*Regarding claim 11:* The apparatus of Bates et al. includes a stabilizer means **91** disposed in the second tubular.

*Regarding claim 13:* The suction tube is threadedly attached to the annular adapter (Figure 1).

*Regarding claim 20:* The method of Bates et al. further involves the following steps:

- Drawing down the level of fluid within the wellbore annulus.
- Terminating the injection of the medium into the micro annulus once the fluid level has reached a predetermined level.
- Flowing natural gas from the formation into the wellbore.
- Producing the gas to the surface.

11. Claims 7, 8, 15, 16, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bates et al. in view of Sudol as applied to claims 1, 3, 10, and 20 above, and further in view of Montgomery et al. (US 5,435,628).

Bates et al. and Sudol discloses all of the limitations of the above claims except for the wellbore extending past the coal bed so that a sump is formed and where the apparatus is placed in the sump below the coal bed.

Montgomery et al. teaches that it is well known to place jet or venturi pumps into a sump below a coal bed when removing fluid from the coal bed (1:34-47).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the method and apparatus of Bates et al. in view of Sudol such that the apparatus was placed in a sump formed in the wellbore below the coal bed as taught by Montgomery et al. in order to have placed the apparatus below the point where fluid was entering the wellbore thus aiding the production in the fluid from the wellbore.

### ***Conclusion***

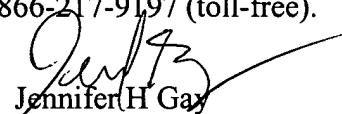
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The remaining references made of record disclose various wellbore venturi pumps.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer H. Gay  
Patent Examiner  
Art Unit 3672

JHG  
March 4, 2005